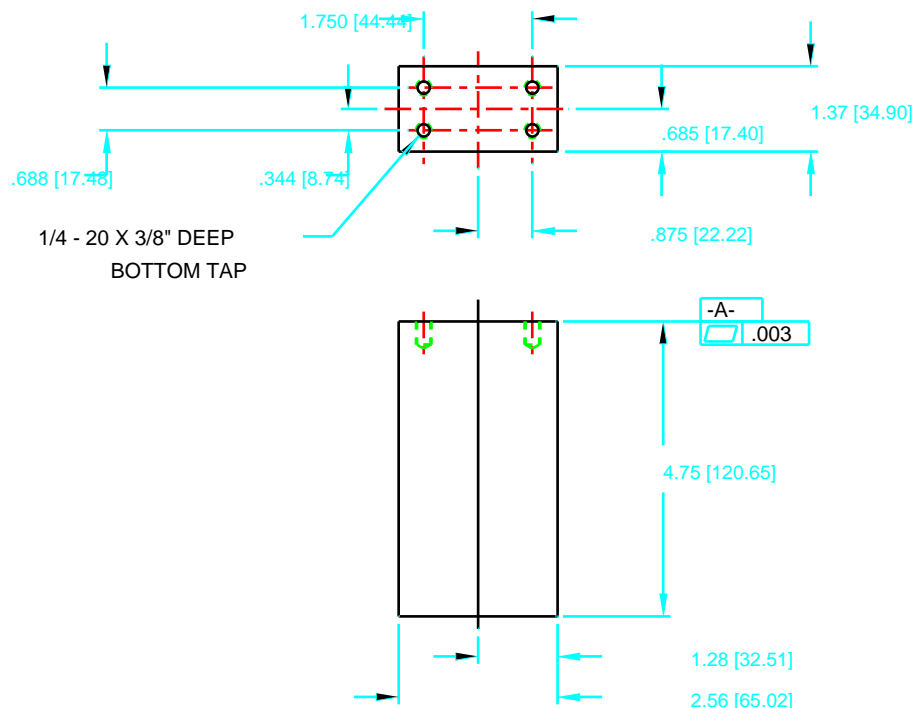


## REF. SOURCE

KULITE TUNGSTEN CORP.  
 160 EAST UNION AVENUE  
 EAST RUTHERFORD, NJ 07073  
 TEL: 1-210-438-9000  
 FAX: 1-210-438-0891

OR

MITEK METALS INC.  
 1340 NORTH SENATE AVENUE  
 INDIANAPOLIS, IN 46202  
 TEL: 1-317-637-3574  
 FAX: 1-633-7224



### NOTES:

- THIS IS A ULTRA- HIGH VACUUM COMPONENT (UHV)
- WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:

- CIMCOOL 5 STAR 49
- TRIM SOL

- ALL SURFACES MUST BE MACHINED FOR CLEAN UP
- TUNGSTEN ALLOY OF 95% TUNGSTEN OR MORE WITH REMAINDER OF NICKEL AND IRON PER MIL-T-20140, CLASS 3, UHV GRADE
- FINISHING: WHEN MACHINING VACUUM PARTS USE OF ABRASIVE PAPER OR SANDING DISCS, BUFFING OR POLISHING COMPOUNDS, OR RESIN-BONDED GRINDING WHEELS IS PROHIBITED

- CLEANING: THE COMPONENT MUST BE CLEANED SUCH THAT A UHV PRESSURE OF  $1 \times 10^{-9}$  TORR CAN BE ACHIEVED

- HANDLING: THE COMPONENTS SHALL BE HANDLED WITH WHITE SILK GLOVES AND WRAPPED WITH ALUMINUM FOIL TYPE DRY ANNEAL AND UNDER CLEAN ROOM CONDITIONS

- BREAK ALL SHARP CORNERS .01

- DIMENSIONS IN [ ] ARE MILLIMETERS AND FOR REF. ONLY

- SURFACE ROUGHNESS  $63 \sqrt{}$

SYN	CHANGE DESCRIPTION	BY	CHKD	DATE

REVISIONS

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
<b>PARTS LIST</b>				
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES		THIS DRAWING IS THE PROPERTY OF		
TOLERANCES		ARGONNE NATIONAL LABORATORY		
DECIMALS	ANGULAR			
.X ± .1 [2.5]	± 0°30'			
.XX ± .01 [0.25]				
.XXX ± .005 [0.13]				
SURFACE ROUGHNESS $125 \sqrt{}$				
REMOVE ALL BURRS AND BREAK SHARP EDGES .03 MAX.				
SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1				
DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ANSI Y14.5				
DO NOT SCALE DRAWING				
LOG NUMBER		P8620005-00		
DRAWN BY	DATE	CHIEF DESIGN ENGINEER	DATE	TITLE
MUSCIA	12/22/97	D. Shu	1/27/98	ADVANCED PHOTON SOURCE
CHECKED BY	DATE	GP LEADER	DATE	P9-60 I.D.
J. CHANG	1/23/98	T.M. Kuzay	2/5/98	MONO. INTEGRAL SHUTTER
DESIGNER	DATE	PROJECT MGR.	DATE	
CHANG/MUSCIA	12/22/97			
RESPONSIBLE ENGINEER	DATE	APPROVED/RELEASED	DATE	
J. CHANG	1/23/98			
MATERIAL		SCALE HALF SIZE		
SEE NOTE #4		DRAWING NUMBER		
		P8-620005-00		
		SHEET 1 of 1		